

Claims

1. Reflectron (109) for use in a mass spectrometer comprising a plurality of reflectron electrodes (123a-123n) connectable to one or more high voltage power supplies (127) characterised in that it is provided with means for changing the electrical potentials of at least some of said reflectron electrodes (123a-123n) in order to change the shape of the electrical field inside said reflectron (109).
- 5 2. Reflectron in accordance with claim 1 characterised in that it is provided with at least two sets of field resistances (131a-131n, 137a-137n) which can be connected one set at a time, or in parallel, or in series, between the reflectron electrodes (123a-123n).
- 10 3. Reflectron in accordance with claim 2 characterised in that one of said sets of field resistances comprises field resistances (131a-131n) arranged to produce a linear electrical field inside said reflectron (109).
- 15 4. Reflectron in accordance with any of claims 2-3 characterised in that one of said sets of field resistances comprises field resistances (137a-137n) arranged to produce an essentially quadratic electrical field inside said reflectron (109).
- 5 5. Reflectron in accordance with any of claims 2-4 characterised in that at least one of said sets of different resistances comprises fewer resistances than there are reflectron electrodes.
- 20 6. Reflectron in accordance with any of the previous claims characterised in that at least one set of field resistances (131a-131n; 137a-137n) is mounted on a movable rod (133; 139), wherein said rod (133; 139) is movable between a first position where said set of field resistances (131a-131n; 137a-137n) are in electrical contact with said reflectron electrodes (123a-123n) and a second position where said set of field resistances (131a-131n; 137a-137n) is not in contact with said reflectron electrodes (123a-123n).